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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,187	11/25/2003	Daniel T. Carmichael	DCARML-010	7936
31025	7590	11/13/2007		
H. BROCK KOLLS 11870 DEVON DOWNS TRAIL ALPHARETTA, GA 30005			EXAMINER CHIN, PAUL T	
			ART UNIT	PAPER NUMBER
			3652	
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			11/13/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/722,187	<b>Applicant(s)</b> CARMICHAEL, DANIEL T.	
	<b>Examiner</b> PAUL T. CHIN	<b>Art Unit</b> 3652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 March 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10, 12-18, 25-27, 29 and 31-33 is/are pending in the application.
- 4a) Of the above claim(s) 12-15 and 32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 16-18, 25-27, 29, 31 and 33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

### **DETAILED ACTION**

1. Applicant's arguments with respect to claims 1-10,16-18,25-27,29,31, and 33, have been considered but are moot in view of the new ground(s) of rejection. A non-final office action follows as below.

#### ***Election/Restrictions***

2. Applicant's election with traverse of the species of Figs. 1B,1D,2A,2B,2D, and 2E, in the reply filed on March 2, 2007, is acknowledged. The traversal is on the ground(s) that "the generic claims are allowable". This is not found persuasive because applicant includes new limitations into claim 1 in combination with other depending claims, which are not allowable. Moreover, claims 25 and 29 are not allowable in view of a new ground of rejection. The requirement is still deemed proper and is therefore made FINAL.

3. Claims 12-15 and 32 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on March 2, 2007.

#### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-10,16-18,25-27,29,31, and 33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 25, and 29 recite, "a plurality of core materials" and the recitation is not clearly understood as exact meaning of "core material". Note that the recitation of "core material" is vague and indefinite. Moreover, there is no antecedent basis for "the

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thickness of the coating material" (claim 1, line 5, claim 25, line 6, and claim 29, line 4). Further, the recitation of the phrases "the thickness of said coating material is regulated in a predetermined pattern to achieve desired operational properties of said lifting sling" in claims 1, 25, and 29 are vague and indefinite as to how "the thickness of the coating" is regulated in a predetermined pattern. It is also unclear the meaning of "predetermined pattern". Applicant fails to define "the operational properties of a lifting sling". Claim 2 recites "said coating material is selected from the group consisting of .....", which contradicts with the previously material selection in claim 1. However, applicant had already defines the coating material includes "an isocyanate mixed with an amine forming polyurea" in claim 1. The recitations of "and or" in claims 18,25, and 29 are vague and indefinite because it fails to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 16 and 25 recite "an electronic system being associated with core materials" and the recitations are not clearly understood as to how "an electronic system" is associated with "core materials" of a sling. Similarly, claim 16 and 29 recite "an indicator being associated with core materials" and the recitation is not clearly understood as to how "an indicator" is associated with "core materials" of a sling.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 2, 5, and 6, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Barber, Jr. et al. (5,460,883).

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Barber, Jr. et al. (5,460,883) discloses a rope or a sling comprising a plurality of cores (12) (figs. 1-4), a coating material comprising at least an isocyanate mixed with an amine forming polyureas (see Col. 9, lines 2-11, see from Col. 11, line 65, to Col. 12, line 12), wherein the coating material has a predetermined thickness. Note that applicant broadly recites the functional limitations such as to achieve desired operational properties of the sling or cable, and Barber, Jr. et al. (5,460,883) is capable of performing the functional limitations such as material selection, temperature, material strength, and so forth. Re claims 2, 5, and 6, the coating material of Barber, Jr. et al. (5,460,883) is selected from one of the group, polyurethane or a polyester (see from Col. 11, line 65, to Col. 12, line 12).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 3 and 4, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Barber, Jr. et al. (5,460,883).

Barber, Jr. et al. (5,460,883), as presented above, does not clearly teach the operating temperature and the strength of the coating material. However, it would have been obvious to those skilled in the art to provide a reasonable operating temperature, which is below a melting point, and a desired tensile strength on the Barber, Jr. et al. (5,460,883) to provide a reliable and operable device.

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10. Claims 1-10, 16, 18, 29, 31, and 33, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over St. Germain (5,651,572) (see IDS) in view of either Bassani (4,098,861) or Barber, Jr. et al. (5,460,883),

St. Germain (5,651,572) discloses a lifting sling comprising a plurality of core strands (7,8) (Figs. 4 and 5), with fiber optics signal means (2,2'), to monitor the sling with a pre-failure indicator, but does not clearly teach a coating material comprising at least an isocyanate mixed with an amine forming polyureas. However, Bassani (4,098,861) teaches a coating material comprising at least an isocyanate mixed with an amine forming polyurethane (see col. 4, lines 9-35). Thus, it would have been obvious to those skilled in the art to provide a coating on the St. Germain (5,651,572) as taught by Bassani (4,098,861) to employ a safe and reliable sling. Moreover, Barber, Jr. et al. (5,460,883) also teaches a coating material comprising at least an isocyanate mixed with an amine forming polyureas (see Col. 9, lines 2-11, see from Col. 11, line 65, to Col. 12, line 12), a polyurethane or a polyester (see from Col. 11, line 65, to Col. 12, line 12). Thus, it would have been obvious to those skilled in the art to provide a coating on the St. Germain (5,651,572) as taught by Barber, Jr. et al. to employ a safe and reliable sling.

Re claims 3 and 4, Bassani (4,098,861) teaches the temperature of the components ranges from 80 to about 200 C degrees and the pressure ranges from about 200 psi to about 3500 psi (col. 3, lines 48-52). Thus, it would have been obvious to those skilled in the art to provide a reasonable operating temperature, which is below a melting point, and a desired tensile strength on the Bassani (4,098,861) or Barber, Jr. et al. (5,460,883) to provide a reliable and operable St. Germain's sling.

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Re claims 5 and 6, Bassani (4,098,861) teaches a coating material comprising at least an isocyanate mixed with an amine forming polyurethane (see col. 4, lines 9-35).

Barber, Jr. et al. (5,460,883) also teaches a coating material comprising at least an isocyanate mixed with an amine forming polyureas (see Col. 9, lines 2-11, see from Col. 11, line 65, to Col. 12, line 12), a polyurethane or a polyester (see from Col. 11, line 65, to Col. 12, line 12).

Re claims 7-10, 16, and 18, St. Germain (5,651,572) also teaches optical signal strand members (2,2'), which is a safety core, to monitor or detect the sling (see col. 3, lines 7-62) with a pre-failure indicator (see col. 4, lines 10-20). Also note that one of the cores or strands (7,8) could be considered as a safety member.

11. Claims 17 and 25-27, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over St. Germain (5,651,572) (see IDS) and either Bassani (4,098,861) or Barber, Jr. et al. (5,460,883), as applied to claims 1, 16, and further in view of Smith et al. (6,443,660).

The modified St. Germain's sling (5,651,572), as presented above, does not specifically teach an electronic system having a plurality of data processing device or a plurality of global network based data processing resources. However, Smith et al. (6,443,660) teaches a lifting sling (34) (see Fig. 3) and an electronic monitoring system comprising signaling means, data recording display system, monitor data, digital readout device, analog readout device, or a computer (see col. 5, lines 34-50) to monitor the lifting sling (34). Thus, it would have been obvious to those skilled in the art to provide an electronic monitoring system to connect to the St. Germain's sling (5,651,572) as taught by Smith et al. (6,443,660) to monitor the integrity of the sling and provide a signal to a user.

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***Response to Arguments***

12. Applicant's arguments with respect to claims 1-10,16-18,25-27,29,31, and 33, have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAUL T. CHIN whose telephone number is (571) 272-6922. The examiner can normally be reached on MON-THURS (7:30 -6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on (571) 272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PAUL T. CHIN  
Examiner  
Art Unit 3652

